MAK MARINE CYL 507

Cylinder oil for slow-speed two stroke engines using high sulphur fuels

MAK Marine Cyl 507 is a high quality cylinder oil designed for use in cross-head slow-speed two-stroke engines operating on low-grade residual fuels. It provides additional protection in engines that is burning residual fuels with higher levels of Sulphur content. The oil is designed to withstand the severe stress encountered by the oil in modern two-stroke marine engines designed for higher rated power output and efficiency. It can handle the stressed condition in terms of acid neutralisation and sludge handling capability. Superior additive chemistry imparts very high resistance to oxidative and thermal stress on the oil. MAK Marine Cyl 507 oil has the ability to retain TBN over a long service life and to keep the engine clean. It offers excellent protection to engine components against rust, corrosion and wear.

Applications:
They are recommended for all types of two-stroke cross-head marine engines using high sulphur residual fuels being used for power generation and marine application.
Feed rate should be in accordance with OEM guidelines.

Commonly Used Classification of Diesel Engines:

Type	Slow Speed	Medium Speed	Medium to High Speed	High Speed
Speed (rpm)	Upto 250	250 – 750	600 – 1500	Above 1500

Performance/ Benefits:

Excellent Resistance to Oxidation – outstanding resistance to the effects of oxidising agents. Resists sludge and deposit formation. Minimises filter choking and valve sticking. Ensures reliability, longer drain period and less maintenance.

Excellent TBN Retention – has the ability to retain TBN over a long service life to neutralise combustion acids and protect engine components.

Clean Engine – highly optimised and effective level of detergency ensures clean engine components like crankcase, valve deck, piston, piston under-crown etc. Controls deposit build-up on piston land and ring to prevent ring sticking.

Balanced Detergency and Dispersancy – combination of high detergency and low dispersancy allows excellent separation of heavy contaminants and water in centrifuge.

Good Antiwear Property – protects engine components like liner, ring from wear. Provides excellent protection against adhesive wear of cam, camshaft and bearings. Enhances system reliability.

Performance Level/ Specification:

- API CF

Approvals:

- 2-stroke MAN B&W marine engines of M/s. MAN Diesel & Turbo

Typical Physico-Chemical Data: MAK Marine Cyl 507

Characteristics	Method	Value
Appearance	Visual	Clear & Bright
Color	Visual	Brown
SAE Viscosity Grade		50
Density, g/cc @ 15^{O}C	ASTM D1298	0.9270
Kinematic Viscosity @40^{O}C, cSt	ASTM D445	236.0
Kinematic Viscosity @100^{O}C, cSt	ASTM D445	20.1
Viscosity Index	ASTM D2270	98
Flash Point, COC, ^{O}C	ASTM D92	264
Copper Corrosion, 100^{O}C, 3 hrs.	ASTM D130	1a
Total Base Number, mg KOH/ g	ASTM D2896	70
Foaming Characteristics, Stability Sequence I/ II/ III	ASTM D892	10/ NIL

Storage & Handling:
The product should be stored inside. Keep it properly sealed to avoid contamination. Avoid freezing. Shelf life is 5 yrs. under protected storage conditions.

Health & Safety:
This oil is unlikely to be hazardous when properly used in recommended applications. Contamination of the oil from other oils, greases, chemicals, dirty water etc. can occur during the use. It should be avoided. Regular monitoring of the in-use product is recommended.

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